

Table 5. SMAP Early Adopters, SMAP project contacts, and applied research topics. Many Early Adopters cross multiple applications.	
Early Adopter PI and institution SMAP Contact	Applied Research Topic
Weather and Climate Forecasting	
Stephane Bélair , Meteorological Research Division, Environment Canada (EC); SMAP Contact: Stephane Bélair	Assimilation and impact evaluation of observations from the SMAP mission in Environment Canada's Environmental Prediction Systems
Lars Isaksen and Patricia de Rosnay , European Centre for Medium-Range Weather Forecasts (ECMWF); SMAP Contact: Patricia de Rosnay	Monitoring SMAP soil moisture and brightness temperature at ECMWF
Xiwu Zhan, Michael Ek and John Simko , NOAA National Environmental Satellite Data and Information Service, Center for Satellite Applications and Research (NOAA-NESDIS-STAR); SMAP Contact: Randy Koster	Transition of NASA SMAP research products to NOAA operational numerical weather and seasonal climate predictions and research hydrological forecasts
Michael Ek, Marouane Temimi and Xiwu Zhan , NOAA National Centers for Environmental Prediction (NCEP); SMAP Contact: Kyle McDonald	Integration of SMAP freeze/thaw product line into the NOAA NCEP weather forecast models
John Galantowicz , Atmospheric and Environmental Research, Inc. (AER); SMAP Contact: John Kimball	Use of SMAP-derived inundation and soil moisture estimates in the quantification of biogenic greenhouse gas emissions
Jonathan Case, Clay Blankenship and Bradley Zavodsky , NASA Short-term Prediction Research and Transition (SPoRT) Center; SMAP Contact: Molly Brown	Data assimilation of SMAP observations, and impact on weather forecasts in a coupled simulation environment
Droughts and Wildfires	
Jim Reardon and Gary Curcio , US Forest Service (USFS); SMAP Contact: Dara Entekhabi	The use of SMAP soil moisture data to assess the wildfire potential of organic soils on the North Carolina Coastal Plain
Chris Funk, Amy McNally and James Verdin , USGS & UC Santa Barbara; SMAP Contact: Molly Brown	Incorporating soil moisture retrievals into the FEWS Land Data Assimilation System (FLDAS)
Kashif Rashid , UN World Food Programme; SMAP Contact: Guy Schumann	Application of a SMAP-based index for flood forecasting in data-poor regions
Floods and Landslides	
Rafael Ameller , StormCenter Communications, Inc.; SMAP Contact: Randy Koster	SMAP for enhanced decision making
Fiona Shaw, Willis, Global Analytics ; SMAP Contact: Robert Gurney	A risk identification and analysis system for insurance; eQUIP suite of custom catastrophe models, risk rating tools and risk indices for insurance and reinsurance purposes
Agricultural Productivity	
Catherine Champagne , Agriculture and Agri-Food Canada (AAFC); SMAP Contact: Stephane Bélair	Soil moisture monitoring in Canada
Zhengwei Yang and Rick Mueller , USDA National Agricultural Statistical Service (NASS); SMAP Contact: Wade Crow	US National cropland soil moisture monitoring using SMAP
Amor Ines and Stephen Zebiak , International Research Institute for Climate and Society (IRI) Columbia University; SMAP Contact: Narendra Das	SMAP for crop forecasting and food security early warning applications
Jingfeng Wang, Rafael Bras and Aris Georgakakos , Georgia Institute of Technology (GT); SMAP Contact: Dara Entekhabi	Application of SMAP observations in modeling energy/water/carbon cycles and its impact on weather and climatic predictions
Curt Reynolds , USDA Foreign Agricultural Service (FAS); SMAP Contact: Wade Crow	Enhancing USDA's global crop production monitoring system using SMAP soil moisture products
Barbara S. Minsker , University of Illinois and sponsored by John Deere Inc.; SMAP Contact: TBD	Comprehensive, large-scale agriculture and hydrologic data synthesis
Human Health	
Hosni Ghedira , Masdar Institute, UAE; SMAP Contact: Dara Entekhabi	Estimating and mapping the extent of Saharan dust emissions using SMAP-derived soil moisture data.
Kyle McDonald , City College of New York (CUNY) and CREST Institute, and Don Pierson , New York City Dept. of Environmental Protection; SMAP Contact: Kyle McDonald	Application of SMAP freeze/thaw and soil moisture products for supporting management of New York City's potable water supply
National Security	
John Eylander , U.S. Army Engineer Research and Development Center (ERDC) Cold Regions Research and Engineering Laboratory (CRREL); SMAP Contact: Susan Moran	U. S. Army ERDC SMAP adoption for USACE civil and military tactical support
Gary McWilliams , Army Research Laboratory (ARL); George Mason , U.S. Army Engineer Research and Development Center (ERDC) Geotechnical and Structures Laboratory (GSL); Li Li , Naval Research Laboratory (NRL); and Andrew Jones , Colorado State University (CSU); SMAP Contact: Susan Moran	Exploitation of SMAP data for Army and Marine Corps mobility assessment
General	
Thomas Harris , Exelis Visual Information Solutions; SMAP Contact: TBD	Utilization of SMAP Products in ENVI, IDL and SARscape - Products L1 to L4